

MEI Core 1 Binomial Expansions Questions Jan 05 - May 09

- 1 Find the coefficient of x^3 in the expansion of $(2 + 3x)^5$. [4]
- 2 Find the binomial expansion of $(2 - x)^3$. [4]
- 3 Find the binomial expansion of $(2 + x)^4$, writing each term as simply as possible. [4]
- 4 Calculate 6C_3 .
Find the coefficient of x^3 in the expansion of $(1 - 2x)^6$. [4]
- 5 Calculate the coefficient of x^4 in the expansion of $(x + 5)^6$. [3]

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- 6** Find the coefficient of x^3 in the expansion of $(3 - 2x)^5$. [4]
- 7** (i) Find the value of 8C_3 . [2]
(ii) Find the coefficient of x^3 in the binomial expansion of $(1 - \frac{1}{2}x)^8$. [2]
- 8** Find the coefficient of x^3 in the binomial expansion of $(5 - 2x)^5$. [4]
- 9** (i) Find the coefficient of x^3 in the expansion of $(x^2 - 3)(x^3 + 7x + 1)$. [2]
(ii) Find the coefficient of x^2 in the binomial expansion of $(1 + 2x)^7$. [3]
- 10** (i) Calculate 5C_3 . [2]
(ii) Find the coefficient of x^3 in the expansion of $(1 + 2x)^5$. [2]